

REMARKS

Reconsideration of the issues raised in the above referenced Office Action is respectfully solicited.

The restriction of dependent Claims 17 and 18 in the previous Office Action has been considered.

Page 3, last line through page 4, line 3 of Applicants' specification states that the drive system generally comprises an electric motor, but may include pneumatic, hydraulic or mechanical drive systems. Applicants appreciate the Examiner's indication that each of the drive systems is an independent invention. Independent parent Claim 13 does not claim the first or second driving system as being electric, hydraulic, or pneumatic powered. Thus, Claim 13 is believed to be generic with respect to the embodiments in Claims 17 and 18.

For the above reasons, upon allowance of independent generic Claim 13, rejoinder and allowance of Claims 17 and 18 dependent therefrom, is respectfully requested.

Applicants appreciate the comments regarding the German patent document listed on page 1 of the specification, which has not been officially considered. The German patent document corresponds to U.S. Patent No. 6 003 920, which is already of official record in this application. Thus Applicants have met their duty of disclosure.

The objection to the drawings as not showing a "flexible torque transfer shaft" has been considered. As discussed in the previous Response, Applicants consider the flexible rack 7 to include a flexible torque transfer shaft. In order to advance prosecution, however, Applicants have cancelled Claims 4 and 12 which recite a flexible torque transfer shaft. Therefore, withdrawal of the drawing objection is respectfully requested.

The objections to the claims have been considered. Claims 1, 5 and 9 have been amended as suggested in the Office Action. Claim 6 has been amended to address an informality therein.

The rejection of Claims 1-4 under 35 USC §102(e) as being anticipated by DeGaillard, U.S. Patent No. 6 568 732, has been considered.

Independent Claim 1 has been amended to include the features of Claims 2 and 4, except for the "flexible torque transfer shaft" recited in Claim 4, which was not considered to be illustrated in the drawings. Thus, Claim 1 now recites that "two powered drive systems having drive shafts are associated with the flat sheet on opposing sides of the vehicle, the powered drive systems being connected to one another through a mechanical synchronization gearing assembly comprising an elongated transfer device coupled to the drive shafts to be synchronously driven".

DeGaillard discloses a device for covering a cargo space 2 of a passenger vehicle that includes a cover shade 9 coupled to drive parts 17. The drive parts are secured to drive cables 18 within guide rails 8 on opposing sides of the vehicle. The drive cables 18 extend through a vertical section 20 downwards under the cargo space bottom 3 to a drive device 21, i.e., a motor. Trailing ends of the drive cables 22 are contained inside the vehicle body. In operation, the drive device 21 synchronously drives the two cables so that the cover shade moves evenly along the interior of the vehicle to cover the cargo space.

DeGaillard does not teach or suggest that two powered drive systems are a good approach. Rather, such an arrangement is mentioned in column 1, lines 29-43 of DeGaillard as present in the prior art and not as simple or desirable. DeGaillard teaches away from Applicants' device.

DeGaillard relies on a single drive motor to synchronously drive two separate cables 20. DeGaillard does not include two powered drive systems as recited in Applicants' Claim 1, much less two powered drive systems having drive shafts.

Further, DeGaillard does not disclose or suggest the elongated transfer device coupled to the drive shafts as illustrated in Applicants' Figure 7.

For the above reasons, reconsideration and allowance of Claim 1, and Claim 3 dependent therefrom, is respectfully requested.

The rejection of Claims 5-11 and 13-16 under 35 USC §102(b) as being anticipated by Crisp, U.S. Patent No. 6 003 920, has been considered.

Crisp discloses a protective device with a cover for a cargo space of a motor vehicle. The device includes first and second motors 25 at opposing sides of the vehicle. Each motor includes an output shaft 24 with a worm gear 23 journaled to a gear pinion 22. The gear pinion is connected to a shaft that rotates a belt 18 along a housing. Each belt includes an entrainment block 15. A rod for the cargo space cover fits into the entrainment blocks 15 of the belts 18. Through their shafts, the motors rotate drive wheels 16 of the linear drives to move the cargo space cover in forward and rearward directions.

Sensors 29 are provided with each of the gears 22 to detect movement of the gear and thereby determine the position of the respective entrainment block 15 along the guide F. The motors 25 are of the variable-speed reversible type and are connected, along with the sensors 29, via flexible electrical lines 26 with an electric controller 27. If one of the sensors 29 detects that the respective gear 22 is moving too fast or too slow, the controller 27 speeds up or slows down the detected drive motor 25 so that the blocks 15 move synchronously. This adjustment can be accomplished by simply comparing the frequency of the pulses emitted by one sensor with the pulses emitted by the other and then adjusting the speed of one or both of the motors. Thus, Crisp utilizes electrical sensing and electric motor control to provide a synchronous operation of the linear drives for the cargo space cover.

Applicants' Claim 5 recites "a mechanical synchronization assembly for ensuring that the first and second driving systems are synchronized". Applicants' flexible rack 7 illustrated in the drawing provides mechanical synchronization. As discussed above, the electric sensor and electric variable speed motor control of Crisp electrically synchronize movement of the two motors. Thus, Applicants' Claim 5 recites an entirely different type of synchronization assembly than that disclosed by Crisp.

As discussed in the Examiner's restriction requirement, the use of hydraulic systems, pneumatic systems and mechanical gearing systems are considered to be different inventions. Therefore, the use of an electric sensing and synchronizing system also must differ from a mechanical synchronization assembly.

Applicants' Claim 6 more specifically recites that the mechanical synchronization assembly comprises "a mechanical synchronization gearing assembly connected to said first driving system on the first side of the vehicle and connected to said second driving system on the second side of the vehicle". As discussed above, this gearing assembly corresponds to element 7 in Applicants' drawing.

The Office Action states that Crisp has a mechanical synchronization gear assembly S, 27 connected to the first driving system on the first side of the vehicle and connected to the second driving system on the second side of the vehicle. Gear assemblies S do not have any synchronizing function, but merely transfer power from one drive element to another. Rather, as discussed above, the controller 27 controls the electric power input to synchronize the motors 25. Further, the controller 27 is an electrical device and does not include a gearing assembly and does not provide mechanical outputs.

Applicants' Claim 9 recites that "each said drive pinion mates with a corresponding part of said mechanical synchronization gearing assembly". The Office Action

indicates that the drive pinions mate with a mechanical synchronization gearing assembly S. As discussed above, the assembly S of Crisp has no synchronization function and the controller 27 provides an electric synchronization, rather than mechanical synchronization.

Applicants' Claim 10 recites that "said mechanical synchronization gearing assembly comprises a rack". As discussed above, Crisp does not disclose a mechanical synchronization gearing assembly, much less a rack. Applicants' Claim 11 further recites that the gearing assembly comprises a flexible push and pull device. As discussed above, Crisp relies on an electric power output from controller 27 for synchronization, and not a mechanical assembly.

Applicants' independent Claim 13 recites a protective device in a motor vehicle including "a first pull strand on a first side of the vehicle" and "a second pull strand on the second side of the vehicle". Claim 13 further recites "a mechanical synchronization gearing assembly connected to said first driving system on the first side of the vehicle and connected to said second driving system on the second side of the vehicle". As discussed above, Crisp does not disclose or suggest a mechanical synchronization gearing assembly, much less in combination with the earlier recited elements, including the first and second pull strands secured to the flat sheet.

Claims 14-16 are allowable for the reasons discussed above with respect to Claim 13.

The rejection of Claim 12 under 35 USC §103 as being unpatentable over Crisp as applied to Claim 7 above, and further in view of DeGaillard has been considered. Claim 12 has been cancelled. Therefore, withdrawal of the rejection is respectfully requested.

The above amendments to Claim 1 merely incorporate features from cancelled Claims 2 and 4. Further, the amendments to Claims 5, 6 and 9 merely address informalities.

Therefore, no new issues are presented and entry of the amendment is respectfully requested.

Further and favorable reconsideration is respectfully solicited.

Respectfully submitted,

Brian Tumm

Brian R. Tumm

BRT/ad

FLYNN, THIEL, BOUTELL
& TANIS, P.C.
2026 Rambling Road
Kalamazoo, MI 49008-1631
Phone: (269) 381-1156
Fax: (269) 381-5465

| | |
|-------------------------|-----------------|
| Dale H. Thiel | Reg. No. 24 323 |
| David G. Boutell | Reg. No. 25 072 |
| Ronald J. Tanis | Reg. No. 22 724 |
| Terryence F. Chapman | Reg. No. 32 549 |
| Mark L. Maki | Reg. No. 36 589 |
| Liane L. Churney | Reg. No. 40 694 |
| Brian R. Tumm | Reg. No. 36 328 |
| Steven R. Thiel | Reg. No. 53 685 |
| Donald J. Wallace | Reg. No. 43 977 |
| Sidney B. Williams, Jr. | Reg. No. 24 949 |

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